



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-3781; Directorate Identifier 2015-SW-048-AD; Amendment 39-18649; AD 2016-18-18]

RIN 2120-AA64

Airworthiness Directives; Agusta S.p.A. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Agusta S.p.A. (Agusta) Model A109A, A109A II, A109C, A109E, A109K2, A109S, and AW109SP helicopters. This AD requires visually inspecting the tail rotor drive shaft assembly (drive shaft) for a crack. This AD was prompted by the discovery of three cracks on the drive shaft of a Model A109S helicopter. The actions of this AD are intended to detect a crack on the drive shaft to prevent failure of the driveshaft, failure of the tail rotor, and subsequent loss of helicopter control.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact

AgustaWestland, Product Support Engineering, Via del Gregge, 100, 21015 Lonate Pozzolo (VA) Italy, ATTN: Maurizio D'Angelo; telephone 39-0331-664757; fax 39-0331-664680; or at <http://www.agustawestland.com/technical-bulletins>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3781.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3781; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Martin R. Crane, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email martin.r.crane@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On March 22, 2016, at 81 FR 15171, the Federal Register published our notice of

proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Agusta S.p.A. Model A109A, A109A II, A109C, A109E, A109K2, A109S, and AW109SP helicopters with a drive shaft part number (P/N) 109-8412-02-1 or 109-8412-02-3 installed. The NPRM proposed to require visually inspecting the drive shaft for a crack. The proposed requirements were intended to detect a crack on the drive shaft to prevent failure of the driveshaft, failure of the tail rotor, and subsequent loss of helicopter control.

The NPRM was prompted by AD No. 2015-0054, dated March 27, 2015, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for the Model A109A with retrofit kit P/N 109-0820-27-101 installed, and Model A109A II, A109C, A109E, A109K2, A109LUH, A109S, and AW109SP helicopters.

EASA advises that during scheduled maintenance on a Model A109S helicopter, three cracks were found on the drive shaft. An investigation could not determine the cause of the cracking but concluded it could not have been caused by fatigue. This condition, if not detected and corrected, could lead to tail rotor failure, possibly resulting in loss of helicopter control, EASA advises. EASA AD No. 2015-0054 consequently requires a one-time inspection of the drive shaft, and replacing the drive shaft if cracks are found.

Comments

We gave the public the opportunity to participate in developing this AD, but we received no comments on the NPRM (81 FR 15171, March 22, 2016).

FAA's Determination

These helicopters have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with Italy, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

Interim Action

We consider this AD to be an interim action. The design approval holder has not determined the cause of the unsafe condition identified in this AD. If a cause is determined and actions developed to address the cause, we might consider additional rulemaking.

Differences Between this AD and the EASA AD

The EASA AD applies to Agusta Model A109LUH helicopters. This AD does not because this model does not have an FAA type certificate.

Related Service Information Under 1 CFR part 51

We reviewed AgustaWestland Bollettino Tecnico (BT) No. 109-147 for Model A109A helicopters with retrofit kit P/N 109-0820-27-101 installed, Model A109A II, and Model A109C helicopters; BT No. 109EP-143 for Model A109E helicopters; BT No. 109K-68 for Model A109K2 helicopters; BT No. 109S-067 for Model A109S helicopters; and BT No. 109SP-094 for Model AW109SP helicopters. All of the BTs are dated March 25, 2015. AgustaWestland reports that during a scheduled servicing of an

A109S helicopter, three cracks were found on drive shaft, P/N 109-8412-02-1. The BTs prescribe a one-time drive shaft inspection for cracks.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 142 helicopters of U.S. Registry and that labor costs average \$85 per work-hour. Based on these estimates, we expect the following costs:

- Inspecting the drive shaft requires 9 work-hours and no parts. The estimated cost is \$765 per helicopter and \$108,630 for the U.S. fleet.
- Replacing the drive shaft requires no additional labor hours. Parts cost \$6,082 per helicopter.

According to Agusta service information, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage by Agusta. Accordingly, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866;
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2016-18-18 **Agusta S.p.A.:** Amendment 39-18649; Docket No. FAA-2015-3781;
Directorate Identifier 2015-SW-048-AD.

(a) Applicability

This AD applies to Agusta S.p.A. Model A109A, A109A II, A109C, A109E, A109K2, A109S, and AW109SP helicopters with a tail rotor drive shaft assembly (drive shaft) part number 109-8412-02-1 or 109-8412-02-3 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a drive shaft. This condition could result in failure of a drive shaft, failure of the tail rotor, and subsequent loss of helicopter control.

(c) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Within 50 hours time-in-service:

(1) Visually inspect each drive shaft in accordance with the Compliance Instructions, paragraph 4, of AgustaWestland Bollettino Tecnico (BT) No. 109-147, dated March 25, 2015; BT No. 109EP-143, dated March 25, 2015; BT No. 109K-68, dated March 25, 2015; BT No. 109S-067, dated March 25, 2015; or BT No. 109SP-094, dated March 25, 2015, as applicable for your model helicopter.

(2) If there is a crack, replace the drive shaft before further flight.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Martin R. Crane, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or

certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2015-0054, dated March 27, 2015. You may view the EASA AD on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2015-3781.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6510, Tail Rotor Drive Shaft.

(i) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) AgustaWestland Bollettino Tecnico No. 109-147, dated March 25, 2015.

(ii) AgustaWestland Bollettino Tecnico No. 109EP-143, dated March 25, 2015.

(iii) AgustaWestland Bollettino Tecnico No. 109K-68, dated March 25, 2015.

(iv) AgustaWestland Bollettino Tecnico No. 109S-067, dated March 25, 2015.

(v) AgustaWestland Bollettino Tecnico No. 109SP-094, dated March 25, 2015.

(3) For Agusta S.p.A. service information identified in this final rule, contact AgustaWestland, Product Support Engineering, Via del Gregge, 100, 21015 Lonate

Pozzolo (VA) Italy, ATTN: Maurizio D'Angelo; telephone 39-0331-664757; fax 39-0331-664680; or at <http://www.agustawestland.com/technical-bulletins>.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on September 1, 2016.

Lance T. Gant,

Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2016-21707 Filed: 9/14/2016 8:45 am; Publication Date: 9/15/2016]